

CORTICOSTEROID INJECTIONS FOR FROZEN SHOULDER: A GLOBAL ONLINE SURVEY OF HEALTH PROFESSIONALS' CURRENT PRACTICE AND OPINION

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Background: Frozen shoulder is a disabling condition characterised by persistent and severe pain and loss of shoulder movement. Corticosteroid injections are targeted at reducing pain in the earlier painful phase (Ahn et al., 2018; Sun, Liu, Chen, & Chen, 2018). Currently, there are no clear guidelines regarding medicines and dose to inject and if this should be under ultrasound or landmark guidance or if an injection should even be considered. This uncertainty results in a range of methods of injections for frozen shoulder.

Purpose: To investigate the current practice and opinion of global healthcare providers on injections for frozen shoulder.

Methods: Methods

An online questionnaire survey was used to investigate current practice and opinions on injections for frozen shoulder. The survey used JISC <https://www.onlinesurveys.ac.uk/> and was disseminated via the social media platform Twitter™. It was available for 5 weeks in spring 2022. Further recruitment involved sharing the link once completed creating a 'snowball' effect.

Results: The total number of respondents was 235 from 33 different countries across 6 continents of which (n=213, 90.6%) were Physical Therapists/Physiotherapists. Other professions were Orthopaedic Consultant (n=10, 4.3%), Sports and Medicine Doctor (n=4, 1.7%), Osteopath (n=3, 1.3%), Physiatrist (n=2, 0.9%), myotherapist (n=1, 0.4%), Radiologist (n=1, 0.4%), Sonographer (n=1, 0.4%).

Most people (n=154, 65.5%) reported seeing between one and two cases of FS a week.

Only (n=35, 14.9%) respondents neither injected nor referred for injection.

The majority (n=155, 66%) reported injections have an important role in the management of frozen shoulder and 191 (81.3%) reported that corticosteroid injections are best administered only during the pain greater than stiffness phase. The glenohumeral joint (GHJ) was most frequently reported as the site to inject (n=136, 57.9%).

Triamcinolone Acetonide (TA) was the most frequently reported (n=66, 28.1%) corticosteroid to inject the GHJ and of these, the most frequently reported dose was 40 mg/ml (n= 52, 78.8%). Doses ranged from 10mg/ml to 40mg/ml.

Triamcinolone Acetonide was the most frequently reported (n=44, 18.7%) substance to inject for the subacromial space and of these, the most frequently reported dose was 40mg/ml (n=27, 61.4%). Doses ranged from 10mg/ml to 40mg/ml.

Lidocaine was the most frequently reported anaesthetic: GHJ (n= 109, 46.4%).

Of those who expressed an opinion (n=96, 40.7%) reported the injection should be performed under ultrasound guidance.

Conclusion(s): There was overall consensus for the use of corticosteroid injections in frozen shoulder. However, the wide variety of doses and lack on convincing consensus on method of delivery, mirrors the uncertainty in the literature. In some respects, the delivery of injection therapy is probably based on personal preference or local guidance in the absence of universally agreed guidance.

Further research should investigate medicine, dose, and method of delivery of corticosteroid injection. Other treatments such as hydrodistension or suprascapular nerve blocks were reported by respondents, and it would be of value to investigate current practice and opinion for both interventions.

Implications: This survey highlights the need for injectors to ensure they are benchmarking their practice against current best evidence whilst acknowledging there are gaps in the literature.

Keyword 1: Online survey

Keyword 2: Corticosteroid injections

Keyword 3: Frozen shoulder

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Consent: Yes

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